

What is claimed is:

1. Packet communication system for transmitting a packet, the packet having header information including address information, application information and DS field value, comprising:

a plurality of input lines;

a plurality of output lines;

a switching unit connected to said input lines and said output lines, the switching unit outputting the packet from an input line of said input lines to an output line of said output lines; and

a control unit for switching a mode to apply to the packet of first mode, second mode, and third mode based on the header information, the first mode being a mode that decides priority of the packet by at least one of the address information and the application information, the second mode being a mode that decides priority of the packet by the DS value, the third mode being a mode that decides rewrite the DS value by at least one of the address information and the application information.

2. Packet communication system according to claim 1, wherein said control unit comprises a table indicating which mode to apply to each of input lines of the first mode, the second mode and the third mode,

whereby said control unit decides the mode to apply to the packet.

3. Packet communication system according to claim 1, wherein the packet is a IP (Internet Protocol) packet and the address information is a source IP address.

4. Packet communication system according to claim 1, wherein the packet is a IP (Internet Protocol) packet and the application information is a TCP (Transmission Control Protocol) port number.